

What is claimed is:

Sub A<sup>3</sup>

5 1. A method of controlling the downloading of code and data objects by a set-top terminal in a cable television system, the method comprising transmitting a download control message to said set-top terminal, wherein said download control message specifies an object to be downloaded, a size of said object and a location of said object such that said set-top terminal is enabled to commence downloading said object upon receipt of said download control message.

10 2. The method of claim 1, wherein said location of said object specified by said download control message includes a channel of a transport stream on which said object is transmitted and a packet identifier identifying data packets of said object within said transport stream.

15 3. The method of claim 1, wherein said location of said object specified by said download control message includes a URL at which said object is stored.

20 4. The method of claim 1, wherein said object is a programming code object for execution by said set-top terminal, said method further comprising downloading said code object in accordance with said download control message.

25 5. The method of claim 4, wherein said download control message further specifies an entitlement control data structure associated with said programming code object, said method further comprising downloading said entitlement control data structure in accordance with said download control message.

30 6. The method of claim 5, further comprising authenticating and authorizing said downloaded code object using said downloaded entitlement control data structure.

5

10

15

20

25

enabled to commence downloading said object upon receipt of said download control message.

5           12.     The system of claim 11, wherein said location of said object specified by said download control message includes a channel of a transport stream on which said object is transmitted and a packet identifier identifying data packets of said object within said transport stream.

10           13.     The system of claim 11, wherein said location of said object specified by said download control message includes a URL at which said object is stored.

15           14.     The system of claim 11, wherein said object is a programming code object for execution by said set-top terminal, and said set-top terminal further comprises means for downloading said code object in accordance with said download control message.

20           15.     The system of claim 14, wherein said download control message further specifies an entitlement control data structure associated with said programming code object, and said set-top terminal further comprises means for downloading said entitlement control data structure in accordance with said download control message.

25           16.     The system of claim 15, wherein said set-top terminal further comprises means for authenticating and authorizing said downloaded code object using said downloaded entitlement control data structure.

30           17.     The system of claim 11, wherein said set-top terminal further comprises:  
              means for downloading said object in accordance with said download control message; and

*A3  
cont'd*

means for terminating said downloading if a timer exceeds a set limit prior to receipt of a next successive data packet of said object.

18. The system of claim 11, wherein:

5 said download control message further specifies an operating environment of said set-top terminal in which said terminal is to respond to said download control message; and

10 said set-top terminal will download said object in accordance with said download control message only if said set-top terminal is in said operating environment specified by said download control message.

19. The system of claim 11, wherein said download control message is embedded in an entitlement management message that is transmitted from a headend facility to said set-top terminal.

20. The system of claim 11, wherein:

15 said download control message specifies an address or characteristic of said set-top terminal; and

20 said set-top terminal further comprises means for comparing said address or characteristic from said download control message to an address or characteristic of said set-top terminal, wherein said set-top terminal downloads said object in accordance with said download control message only if said address or characteristic of said set-top terminal matching the address or characteristic specified in said download control message.

09621516 072100

*Cont'd*  
*add A<sup>3</sup> com's*